Prescribing...

# First Seizure in Adults April 2016

- This month's bulletin summarises the care of adults who present for the first time in primary care with an apparently unprovoked seizure.
- 10% of people living to the age of 80 will have one or more seizures – half of these will be febrile convulsions, which will not be covered in this bulletin.
- The prevalence of epilepsy is 0.5–1%.
- Loss of consciousness is not essential to make a diagnosis of seizure.
- In 85% of cases diagnosis is made from the history.

Before taking a detailed seizure history, other causes of similar symptoms, e.g. syncope, cardiac causes and orthostatic hypotension would be considered. The role of eye-witnesses is very important and it is advised that blood glucose should be checked and an ECG done. The different types are characterised depending on whether or not the patient has lost consciousness.

## A. Seizures without loss of consciousness

These are usually brief in duration but recognised and well recalled by the patient who remains awake throughout the event. The following are the different types of these seizures and their clinical features

### 1. Myoclonus

- Sudden irregular jerks of trunk or one or more limbs (can be a normal phenomenon – most of us have experienced this on falling asleep).
- May present as sudden clumsiness, dropping objects or a violent jolt causing a fall.
- Myoclonus in the awake state requires specialist assessment.
- May be related to medication, e.g. narcotics, antidepressants and antipsychotics

### 2. Aura

Epilepsy auras are brief, lasting seconds, compared with migraine auras which may last minutes. There are several different varieties but they are all positive phenomena (e.g. presence of a new symptom rather than absence of function):

- Autonomic, e.g. a rising epigastric sensation lasting seconds
- Psychic, e.g. déjà vu
- Sensory, e.g. metallic taste, coloured spots, tinnitus, tingling.

Complex hallucinations or long lasting disturbances are not likely to be epileptic.

### 3. Simple partial motor seizures

These are regular stiffening and shaking or tonic-clonic of a limb in an alert patient in the absence of spasticity from another neurological cause.

## B. Seizures with loss of consciousness

Here eye-witness accounts are important because the patient will not be fully aware of the event. NICE guidelines recommend speaking to someone who witnessed the episode. The types are as follows

### 1. Absences or petit mal

- Disruption of awareness and activity usually lasting seconds but can occur many times per day.
- Motionless stare or eyelid fluttering may be observed.
- Usually present in childhood for first time but can persist into adulthood.

EEG is diagnostic in 90% of cases.

### 2. Complex partial seizure

- Impairment of awareness or consciousness usually evolving from an aura state as described above.
- May involve stereotyped movements, e.g. lip smacking/fiddling.
- Communication usually impaired at the time.

**3. Tonic–clonic seizure**

- May have no warning or start with aura, patient loses consciousness and usually falls to the floor.
- Phase of rigidity usually followed by shaking in all limbs.
- Lasts 1–2min and followed by post-ictal confusion.

**Role of primary care**

If a GP suspects a first seizure a referral is made for specialist assessment by a neurologist. It is not considered necessary to start treatment whilst waiting for specialist review following one unprovoked seizure. An ECG is performed and blood glucose U&E, FBC, calcium and other bloods as indicated by clinical condition, e.g. TFT/LFT if appropriate. Advice is offered about lifestyle and driving.

**Advice about lifestyle and driving**

Simple lifestyle advice should be given in primary care while the patient waits for a specialist appointment:

- Have showers rather than baths, ideally with heat controlled system. If this is not possible then a relative or carer should be present during bathing.
- Consider occupation.
- Discuss first aid training for relatives (what to do in the event of a seizure).

First seizures need to be reported to the authorities. In primary care, patients should be advised not to drive until they have seen a specialist and the diagnosis is established.

The current advice from the Environment Department, the same as in the UK, is as follows :

- If a first unprovoked seizure is confirmed, investigations are normal and there is no neurological deficit, driving can usually resume after 6 months.
- Otherwise driving can usually resume after being seizure-free for 12 months.
- Rules are more stringent for PSV and HGV licences

**Do all first fits need treatment?**

The simple answer is no – part of the initial neurological assessment is to determine if the patient falls into a high or low risk category for further seizures and whether this truly is an isolated event. However, this is not an exact science.
Roughly speaking:

- **Low risk first seizure:** removable trigger, normal neurology/imaging, etc. – risk of recurrence is <35% over 5 years and treatment will not usually be offered.
- **High risk first seizure:** neurological deficit or abnormal MRI imaging or abnormal EEG – risk of recurrence is 70% over 5 years and treatment will usually be offered.
- **Epilepsy:** more than one event – will usually be offered treatment.

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References : BMJ Clinical Review ( BMJ 2014; 348:g2470) , NICE CG 137, Environment Department States of Guernsey
Further reading : NICE Guidance : https://www.nice.org.uk/guidance/cg137/resources/epilepsies-diagnosis-and-management and
NHS Choices for patient information : http://www.nhs.uk/Conditions/Epilepsy/Pages/Symptoms.aspx